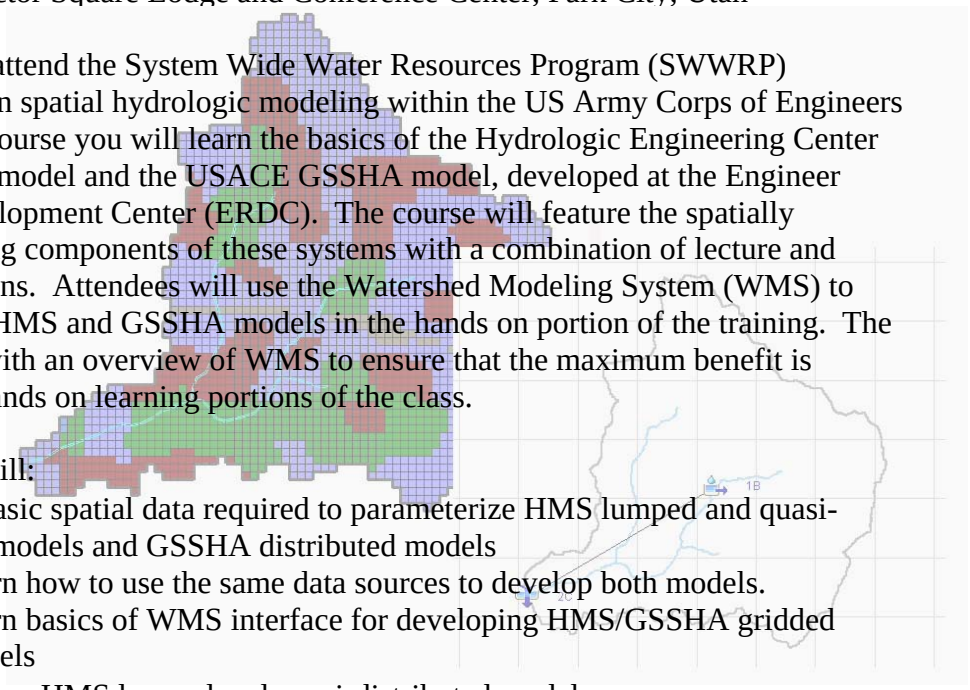
SWWRP Course Announcement

Introduction to Spatial Hydrologic Modeling in the US Army Corps of Engineers: HEC-HMS and GSSHA Modeling Systems

June 24-26, 2008

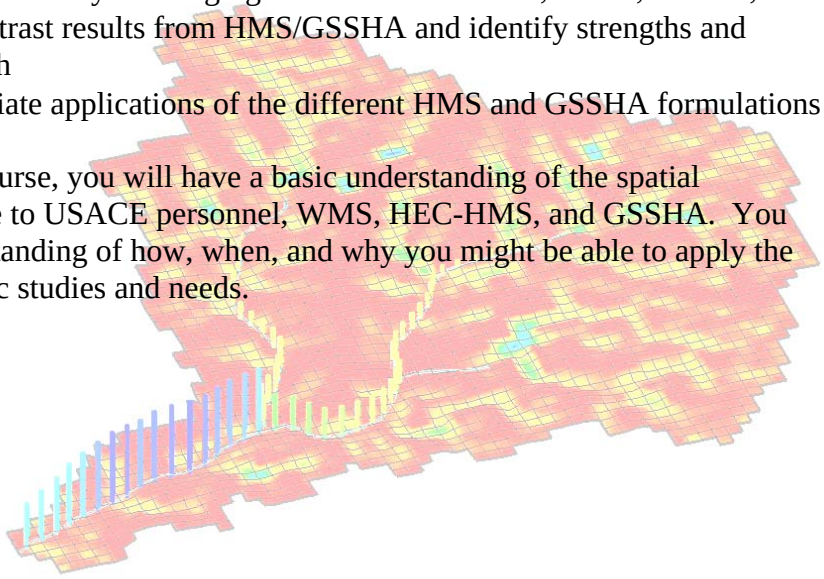
Prospector Square Lodge and Conference Center, Park City, Utah



You are invited to attend the System Wide Water Resources Program (SWWRP) sponsored course on spatial hydrologic modeling within the US Army Corps of Engineers (USACE). In the course you will learn the basics of the Hydrologic Engineering Center (HEC) HEC-HMS model and the USACE GSSHA model, developed at the Engineer Research and Development Center (ERDC). The course will feature the spatially distributed modeling components of these systems with a combination of lecture and hands on applications. Attendees will use the Watershed Modeling System (WMS) to parameterize both HMS and GSSHA models in the hands on portion of the training. The course will begin with an overview of WMS to ensure that the maximum benefit is derived from the hands on learning portions of the class.

Course attendees will:

- Learn the basic spatial data required to parameterize HMS lumped and quasi-distributed models and GSSHA distributed models
  - Learn how to use the same data sources to develop both models.
  - Learn basics of WMS interface for developing HMS/GSSHA gridded models
- Set up and run HMS lumped and quasi-distributed models
- Set up and run basic GSSHA distributed runoff models
- Use basic models to analyze changing conditions – land use, BMPs, streams, etc.
- Compare and contrast results from HMS/GSSHA and identify strengths and limitations of each
- Discover appropriate applications of the different HMS and GSSHA formulations



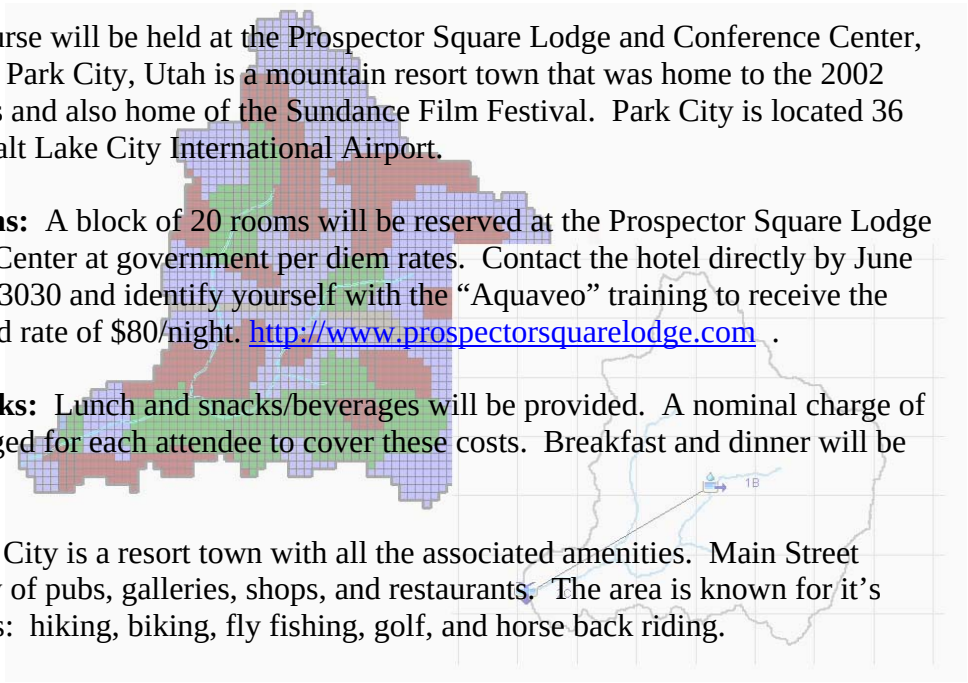
Having completed the course, you will have a basic understanding of the spatial hydrology tools available to USACE personnel, WMS, HEC-HMS, and GSSHA. You will have a better understanding of how, when, and why you might be able to apply the tools to your own specific studies and needs.

Who Should Attend?

The course is intended for those with basic hydrology and hydrologic modeling experience who want to learn about more advanced hydrologic modeling tools. As this is not a comprehensive training on either HEC-HMS or GSSHA, some prior experience with one or both will be helpful but not absolutely necessary. Familiarity with GIS and digital spatial datasets will also be helpful, but is not required.

When: June 24-26, 2008. Course hours are 8AM to 5PM.

Where: The course will be held at the Prospector Square Lodge and Conference Center, Park City, Utah. Park City, Utah is a mountain resort town that was home to the 2002 Winter Olympics and also home of the Sundance Film Festival. Park City is located 36 miles from the Salt Lake City International Airport.



Accommodations: A block of 20 rooms will be reserved at the Prospector Square Lodge and Conference Center at government per diem rates. Contact the hotel directly by June 9th at (435) 658-3030 and identify yourself with the "Aquaveo" training to receive the special contracted rate of $80/night. http://www.prospectorsquarelodge.com .

Meals and Breaks: Lunch and snacks/beverages will be provided. A nominal charge of $50 will be charged for each attendee to cover these costs. Breakfast and dinner will be on your own.

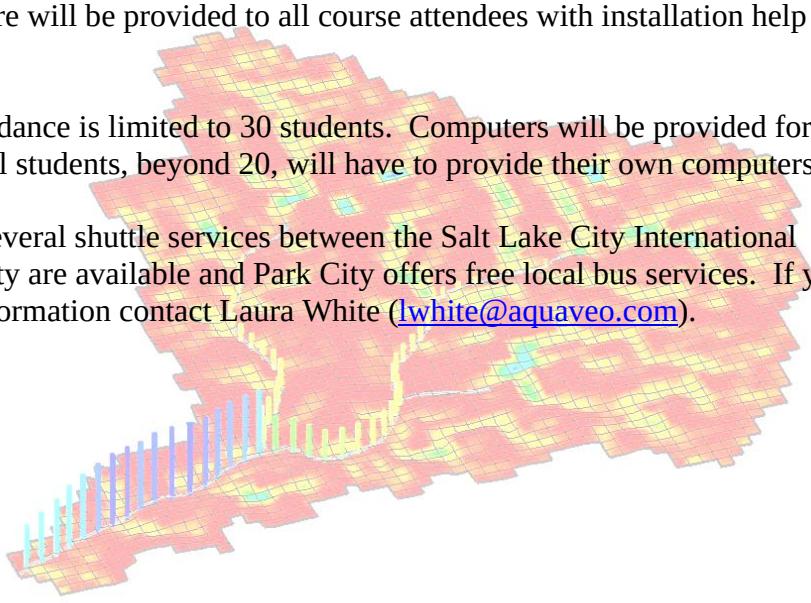
Activities: Park City is a resort town with all the associated amenities. Main Street features a variety of pubs, galleries, shops, and restaurants. The area is known for it's outdoor activities: hiking, biking, fly fishing, golf, and horse back riding.

Costs: The only cost for the course is the nominal $50 expense of lunch and breaks. The fee will be collected at the beginning of the course.

Computers: Computers will be provided for up to 20 students. Students will be paired to increase the learning experience. You may also bring your own laptop PC. Additional students can be accommodated, provided they bring laptop PCs. The WMS, HEC-HMS, and GSSHA software will be provided to all course attendees with installation help provided.

Attendance: Attendance is limited to 30 students. Computers will be provided for 20 students. Additional students, beyond 20, will have to provide their own computers.

Transportation: Several shuttle services between the Salt Lake City International Airport and Park City are available and Park City offers free local bus services. If you would like more information contact Laura White (lwhite@aquaveo.com).



Instructors: Instruction will be provided by the WMS, HEC-HMS, and GSSHA model developers. Students will have a unique opportunity to work directly with the leading experts on the various models. Your instructors are:

Dr. Jim N. Nelson – Associate Professor, Department of Civil Engineering, Brigham Young University. Dr. Nelson is the primary developer of the WMS software. In addition to his research and teaching duties at BYU, he is a WMS instructor and advisor on WMS development. Dr. Nelson is currently teaching a course on spatial hydrologic modeling at BYU and also teaches a course on GIS applications of Civil Engineering. He brings a wealth of teaching knowledge to the three day course.

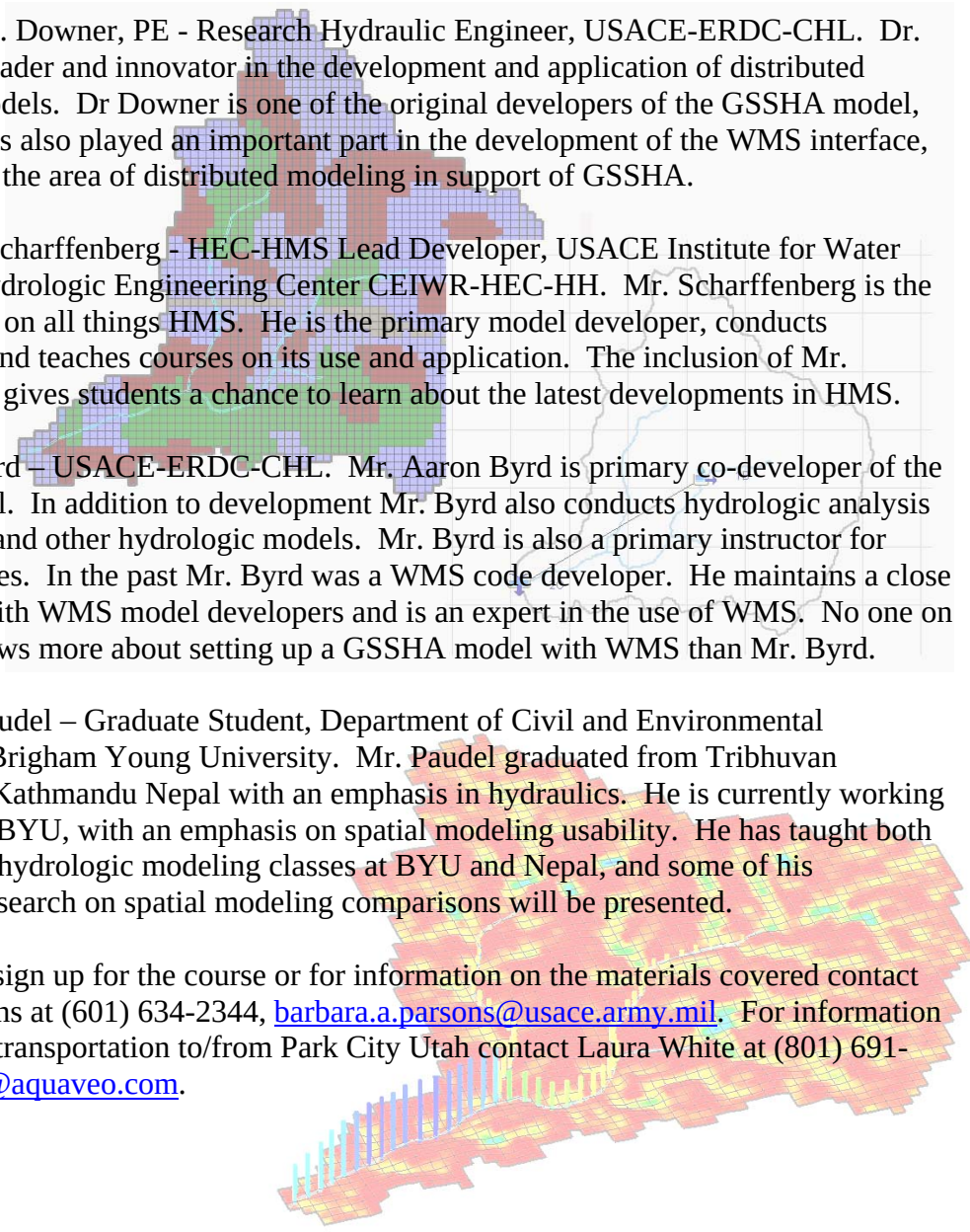
Dr. Charles W. Downer, PE - Research Hydraulic Engineer, USACE-ERDC-CHL. Dr. Downer is a leader and innovator in the development and application of distributed hydrologic models. Dr Downer is one of the original developers of the GSSHA model, and as such has also played an important part in the development of the WMS interface, particularly in the area of distributed modeling in support of GSSHA.

Mr. William Scharffenberg - HEC-HMS Lead Developer, USACE Institute for Water Resources, Hydrologic Engineering Center CEIWR-HEC-HH. Mr. Scharffenberg is the leading expert on all things HMS. He is the primary model developer, conducts applications, and teaches courses on its use and application. The inclusion of Mr. Scharffenberg gives students a chance to learn about the latest developments in HMS.

Mr. Aaron Byrd – USACE-ERDC-CHL. Mr. Aaron Byrd is primary co-developer of the GSSHA model. In addition to development Mr. Byrd also conducts hydrologic analysis with GSSHA and other hydrologic models. Mr. Byrd is also a primary instructor for GSSHA courses. In the past Mr. Byrd was a WMS code developer. He maintains a close relationship with WMS model developers and is an expert in the use of WMS. No one on the planet knows more about setting up a GSSHA model with WMS than Mr. Byrd.

Mr. Murari Paudel – Graduate Student, Department of Civil and Environmental Engineering, Brigham Young University. Mr. Paudel graduated from Tribhuvan University in Kathmandu Nepal with an emphasis in hydraulics. He is currently working on his PhD at BYU, with an emphasis on spatial modeling usability. He has taught both hydraulic and hydrologic modeling classes at BYU and Nepal, and some of his preliminary research on spatial modeling comparisons will be presented.

Contact: To sign up for the course or for information on the materials covered contact Barbara Parsons at (601) 634-2344, barbara.a.parsons@usace.army.mil. For information on lodging or transportation to/from Park City Utah contact Laura White at (801) 691-5528, lwhite@aquaveo.com.



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